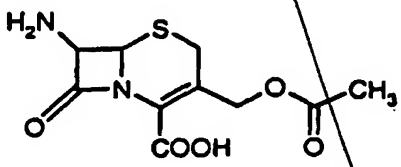
(i) a catalyst solution of boron trifluoride in an organic solvent or in a mixture of organic solvents,

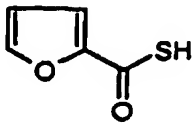
(ii) a solution of 2-thiofuroic acid (furyl-2-carbonylthiol) of the formula (III) in a solvent, and

(iii) 7-aminocephalosporanic acid of the formula (II), and

(b) precipitating Furaca (3-[2-(furylcarbonyl) thiomethyl]-3-cephem-4-carboxylic acid) as a solid.



(II)

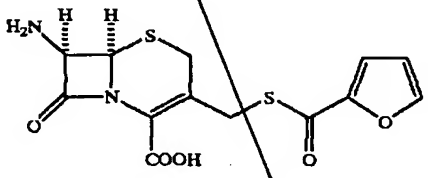


(III)

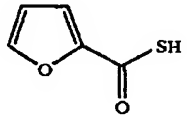
--17. The process of claim 16, wherein both the organic solvent and the mixture of organic solvents are selected from the group consisting of ethyl acetate, methyl acetate, and propyl acetate.--

--18. The process of claim 16, wherein said components are allowed to react at a reaction temperature between 20°C and 50°C before step (b).--

--19. A process to prepare cephalosporin compound of the formula



comprising performing nucleophilic displacement of the acetoxy of 7-aminocephalosporanic acid by 2-thiofuroic acid of the formula

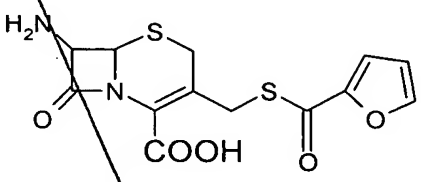


in presence of boron trifluoride in a solvent or a mixture of solvents.--

--20. The process of claim 19 wherein both the said organic solvent and the said mixture of solvents is selected from the group consisting of ethyl acetate, methyl acetate, propyl acetate.--

--21. The process of claim 19 wherein the said nucleophilic displacement is conducted out at a reaction temperature between 20°C and 50°C.--

--22. A process to prepare a cephalosporin compound (Furaca: 3-[2-(furylcarbonyl) thiomethyl]-3-cephem-4-carboxylic acid) represented by formula (I),



(I)

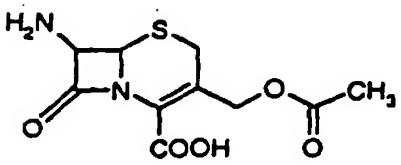
comprising the steps of:

preparing a catalyst solution of boron trifluoride in an organic solvent or in a mixture of organic solvents,

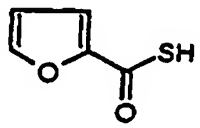
mixing into said catalyst solution a solution of 2-thiofuroic acid (furyl-2-carbonylthiol) of the formula (III) in a solvent to form a reactant mixture,

reacting 7-aminocephalosporanic acid of the formula (II) with the said reactant mixture, and

precipitating from the said reaction mixture Furaca (3-[2-(furylcarbonyl) thiomethyl]-3-cephem-4-carboxylic acid) as a solid.



(II)



(III)